

REMARKS

Reconsideration and allowance of the present application are respectfully requested.

Claims 10 and 11 are presently pending in this application. Withdrawn claims 1-9 and 12-17 have been cancelled, because they are directed to non-elected subject matter. Claim 10 has been amended as supported in the present specification including at page 16, line 25.

No new matter has been added.

In response to the rejection of claims 10 and 11 under 35 USC 112, first paragraph, claim 10 has been amended to replace the language of “single calcination zone” with the language of “rotary kiln.” The language of “rotary kiln” is supported in the present specification, including at page 16, line 25.

Accordingly, the applicants submit that all presently considered claims are fully allowable under Section 112, first paragraph.

The applicants respectfully traverse the rejection of claims 10 and 11 under 35 USC 103(a) in view of the cited reference, Foulger et al.

This reference does not make the presently claimed invention to be obvious.

Foulger et al. teaches anatase titanium dioxide having a large crystal size (column 1, lines 4-6). The production of such anatase titanium dioxide is accomplished by employing the complex multiple calcining zones as described in Foulger at column 1, lines 53 to column 2, line 1; at column 3, lines 18 - 43; in the Example at column 4; and in claim 1. According to the method of Foulger, the titanium oxide was produced by passing (moving) the material from a first calcination zone, into a second calcination zone, into a third calcination zone, into a forth

calcination zone, into a fifth calcination zone and finally into a sixth calcination zone.

In contrast, according to the presently claimed method, the material is calcined in a rotary kiln. With proper operation, the calcination in a rotary kiln occurs at a certain temperature in one location, i.e. within the rotary kiln. The particles may be subjected to preheating before entering the rotary kiln for calcination, and after calcination, the calcined particles may be subjected to cooling. However, the applicants submit that the Examiner's interpretation of such a preheating, rotary kiln and cooling system, to constitute one rotary kiln, is too broad. The rotary kiln of the presently claimed method constitutes a single calcination zone, unlike the multiple calcination zones disclosed in Foulger.

The rotary kiln of the presently claimed invention is nowhere disclosed, suggested or made obvious by the teachings of Foulger et al.

The Office Action, at page 3, end of section 5, appears to state that the present invention was not intended to exclude zone heating. To the contrary, however, the Examiner is asked to read Example 1, page 31, lines 10-11, where the material was simply calcined by heating at 960°C for 1 hour, using an electric oven. The electric oven is a single location, i.e. single zone, in which calcination occurs. This single site calcination is employed in other examples of the application such as Examples 2, 3 and 4.

The presently claimed method yields a high quality product of anatase titanium dioxide having a large crystal size, excellent whiteness and high opacity. The single calcination site, i.e. zone, in the presently claimed method, together with the other recited features, provides a simple, effective method that distinguishes over the complex method of Foulger.

Accordingly, the applicants submit that the present invention as recited in claims 10 and 11 are fully allowable under Section 103(a) in view of the cited art.

In view of the above, it is believed that the present application is in condition for allowance and a Notice to that effect is respectfully requested.

Respectfully submitted,

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